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(54) HEAT TREATMENT OF SUBSTRATE

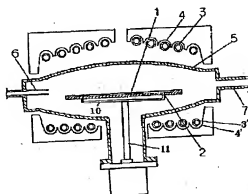
(57) Abstract:

satisfactory reproducibility can be obtained.

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**PURPOSE:** To increase the temperature rise/fall speed and obtain satisfactory reproducibility by making a susceptor of porous glass-like carbon, in heat treatment of substrate for heating a substrate on a susceptor in a chamber by irradiation with an infrared lamp or induction-heating the substrate by high frequencies.

**CONSTITUTION:** In a quartz chamber 5, a substrate 1 is supported via a susceptor 2 on a support 10 on a support bar 11. The susceptor 2 is made of porous glass-like carbon coated with SiC, and has a thickness of approximately 3 to 5mm. The porous glass-like carbon has a gap rate of about 97%, a density of about 0.05g/cc and a pore rate of about 50ppi. As the substrate is heat-treated with the temperature raised to approximately 600 to 700°C, the temperature rise speed of the substrate is about 40°C/sec, which is about twice the conventional speed. After heat treatment, as the temperature is lowered, the temperature fall speed is about 10°C/min, which is much faster than the conventional speed. By thus raising and lowering the temperature of the substrate 1 at high speeds,



*giving more  
glassy hollow part with SiC -  
Decide*